



02/06/2007

ECC

63 Herb Hill Road  
Glen Cove, NY 11542

**STL Edison**

777 New Durham Road  
Edison, NJ 08817

Tel 732 549 3900 Fax 732 549 3679  
www.stl-inc.com

Attention: Mr. Theodore Johnson

**Laboratory Results**  
**Job No. C378 - Li Tungsten**

Dear Mr. Johnson:

Enclosed are the results you requested for the following sample(s) received at our laboratory on January 27, 2007.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
803376	5601-FSS-PB-1001-1	As Pb
803377	5601-FSS-PB-1008-1	As Pb
803378	5601-FSS-PB-102B-1	As Pb
803379	5601-FSS-PB-103B-1	As Pb
803380	5601-FSS-PB-1022-1	As Pb
803381	5601-FSS-PB-1023	As Pb
803382	5601-FSS-PB-1024	As Pb
803383	5601-FSS-PB-1025	As



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[www.stl-inc.com](http://www.stl-inc.com)

**Laboratory Results**  
**Job No. C378 - Li Tungsten (cont'd)**

Lab No.

Client ID

Analysis Required

Pb

This report is not to be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please contact me at (732) 549-3900.

Very Truly Yours,

A handwritten signature in black ink, appearing to read "ML Legg".

Michael Legg  
Project Manager

<b>Analytical Results Summary .....</b>	<b>1</b>
<b>General Information .....</b>	<b>10</b>
Chain of Custody .....	10
Laboratory Chronicles .....	12
Methodology Review .....	21
Data Reporting Qualifiers .....	25
Non-Conformance Summary .....	27
<b>Metals Forms and Data .....</b>	<b>29</b>
Analytical Results Summary .....	29
Blank Results Summary .....	38
Calibration Summary .....	41
ICP Interference Check Results Summary .....	44
Spike Sample Recovery Summary .....	46
Sample and MS Duplicate Results Summary .....	49
Laboratory Control Samples Results Summary .....	52
Serial Dilution Summary .....	54
Analysis Run Log .....	56
<b>This is the Last Page of the Document .....</b>	<b>59</b>

## **Analytical Results Summary**

Client ID: FSS-PB-1001-1  
Site: Li Tungsten

Lab Sample No: 803376  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 33.0

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	<u>Qual</u>	<u>M</u>
Arsenic	6.4	1.4		P
Lead	119	0.81	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-1008-1  
Site: Li Tungsten

Lab Sample No: 803377  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 17.1

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection <u>Limit</u>	<u>Qual</u>	<u>M</u>
Arsenic	6.9	1.1		P
Lead	54.9	0.65	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-102B-1  
Site: Li Tungsten

Lab Sample No: 803378  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 26.1

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection <u>Limit</u>	<u>Qual</u>	<u>M</u>
Arsenic	15.3	1.3		P
Lead	23.8	0.73	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)

M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-103B-1  
Site: Li Tungsten

Lab Sample No: 803379  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 16.1

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection <u>Limit</u>	<u>Qual</u>	<u>M</u>
Arsenic	12.8	1.1		P
Lead	8.2	0.64	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)



Client ID: FSS-PB-1022-1  
Site: Li Tungsten

Lab Sample No: 803380  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 10.6

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection <u>Limit</u>	<u>Qual</u>	<u>M</u>
Arsenic	12.5	1.1		P
Lead	325	0.60	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)

M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-1023  
Site: Li Tungsten

Lab Sample No: 803381  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 33.5

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	<u>Qual</u>	<u>M</u>
Arsenic	6.6	1.3		P
Lead	112	0.74	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)

M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-1024  
Site: Li Tungsten

Lab Sample No: 803382  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 25.0

# METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection <u>Limit</u>	<u>Qual</u>	<u>M</u>
Arsenic	10.8	1.3		P
Lead	25.5	0.72	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-1025  
Site: Li Tungsten

Lab Sample No: 803383  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 12.1

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection <u>Limit</u>	<u>Qual</u>	<u>M</u>
Arsenic	40.6	1.1		P
Lead	9.9	0.61	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)

## **General Information**

Chain of Custody

C378

**Environmental Chemical Corporation**

1746 Cole Blvd.  
Bldg. 21, Suite 350  
Lakewood, CO 80401  
Phone: (303) 298-7607  
Fax: (303) 298-7837



COC Number:

Customer Name: ECC - Li Tungsten

Address: 63 Herb Hill Road, Glen Cove, NY 11542

ECC Project Manager: Phil O'Dwyer  
Address: 63 Herb Hill Road, Glen Cove, NY 11542

Contact: Theodore Johnson

Phone: (303) 472 - 8834

Fax: (516) 665-8531

Phone: (614) 402 - 2020

Customer Project Name: Li Tungsten

SAMPLE NUMBER	DATE	TIME	TYPE	CLIENT SAMPLE IDENTIFIER	TESTS	CONTAINER(S)	MATRIX
5601 -FSS-PB-1001-1	1/26/2007	11:45	FSS	Parcel B 803316		1 glass jar	Soil
5601 -FSS-PB-1008-1	1/26/2007	12:30	FSS	Parcel B 377		1 glass jar	Soil
5601 -FSS-PB-102B-1	1/26/2007	12:15	FSS	Parcel B Bias 378		1 glass jar	Soil
5601 -FSS-PB-103B-1	1/26/2007	12:00	FSS	Parcel B Bias 379	Lead & Arsenic	1 glass jar	Soil
5601-FSS-PB-1022-1	1/26/2007	12:30	FSS	Parcel B 380		1 glass jar	Soil
5601-FSS-PB-1023	1/26/2007	11:45	FSS	Parcel B 381		1 glass jar	Soil
5601-FSS-PB-1024	1/26/2007	12:15	FSS	Parcel B 382		1 glass jar	Soil
5601-FSS-PB-1025	1/26/2007	12:00	FSS	Parcel B 383		1 glass jar	Soil
N/A							
N/A							
N/A							

**Notes:**

Ship to: Severn Trent Laboratory, EDISON  
777 New Durham Road, Suite 7, Edison, New Jersey, 08817  
Phone: 732-549-3900

Samples cooled below 4 C

Request Turnaround Time: 7 Day

**Laboratory Receipt Information**

Cooler/Container Intact? Yes \_\_\_ No \_\_\_  
Samples Received At Below 4 C? Yes \_\_\_ No \_\_\_  
Samples Containers Intact? Yes \_\_\_ No \_\_\_  
Cooler/Container Custody Seal? Yes \_\_\_ No \_\_\_

**CUSTODY TRANSFER RECORD**

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Print: T Johnson Sign: <i>[Signature]</i>	ECC	1/26/2007	15:30	Print:			
Print: <i>[Signature]</i>		1/26/07	14:00	Print: <i>[Signature]</i>			
Print:				Print:			

## Laboratory Chronicles

**INTERNAL CUSTODY RECORD  
AND  
LABORATORY CHRONICLE  
STL Edison**

777 New Durham Road, Edison, New Jersey  
08817

**Job No:** C378

**Site:** Li Tungsten

**Client:** ECC

**Date Sampled:** 1/26/2007

**Sample No.:** 803376

**Date Received:** 1/27/2007

**Matrix:** SOLID

**METALS**

<u>Analytic Parameter</u>	<u>Preparation Date</u>	<u>Technician's Name</u>	<u>Analysis Date</u>	<u>Analyst's Name</u>	<u>QA Batch</u>
<u>ARSENIC</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>
<u>LEAD</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>



**INTERNAL CUSTODY RECORD  
AND  
LABORATORY CHRONICLE  
STL Edison**

777 New Durham Road, Edison, New Jersey  
08817

**Job No:** C378

**Site:** Li Tungsten

**Client:** ECC

**Date Sampled:** 1/26/2007

**Sample No.:** 803377

**Date Received:** 1/27/2007

**Matrix:** SOLID

**METALS**

<u>Analytic Parameter</u>	<u>Preparation Date</u>	<u>Technician's Name</u>	<u>Analysis Date</u>	<u>Analyst's Name</u>	<u>QA Batch</u>
<u>ARSENIC</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>
<u>LEAD</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>

**INTERNAL CUSTODY RECORD  
AND  
LABORATORY CHRONICLE  
STL Edison**

777 New Durham Road, Edison, New Jersey  
08817

**Job No:** C378

**Site:** Li Tungsten

**Client:** ECC

**Date Sampled:** 1/26/2007

**Sample No.:** 803378

**Date Received:** 1/27/2007

**Matrix:** SOLID

**METALS**

<u>Analytic Parameter</u>	<u>Preparation Date</u>	<u>Technician's Name</u>	<u>Analysis Date</u>	<u>Analyst's Name</u>	<u>QA Batch</u>
<u>ARSENIC</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>
<u>LEAD</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>

**INTERNAL CUSTODY RECORD  
AND  
LABORATORY CHRONICLE  
STL Edison**

777 New Durham Road, Edison, New Jersey  
08817

**Job No:** C378

**Site:** Li Tungsten

**Client:** ECC

**Date Sampled:** 1/26/2007

**Sample No.:** 803379

**Date Received:** 1/27/2007

**Matrix:** SOLID

**METALS**

<u>Analytic Parameter</u>	<u>Preparation Date</u>	<u>Technician's Name</u>	<u>Analysis Date</u>	<u>Analyst's Name</u>	<u>QA Batch</u>
<u>ARSENIC</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>
<u>LEAD</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>

**INTERNAL CUSTODY RECORD  
AND  
LABORATORY CHRONICLE  
STL Edison**

777 New Durham Road, Edison, New Jersey  
08817

**Job No:** C378

**Site:** Li Tungsten

**Client:** ECC

**Date Sampled:** 1/26/2007

**Sample No.:** 803380

**Date Received:** 1/27/2007

**Matrix:** SOLID

**METALS**

<u>Analytic Parameter</u>	<u>Preparation Date</u>	<u>Technician's Name</u>	<u>Analysis Date</u>	<u>Analyst's Name</u>	<u>QA Batch</u>
<u>ARSENIC</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>
<u>LEAD</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>

**INTERNAL CUSTODY RECORD  
AND  
LABORATORY CHRONICLE  
STL Edison**

777 New Durham Road, Edison, New Jersey  
08817

**Job No:** C378

**Site:** Li Tungsten

**Client:** ECC

**Date Sampled:** 1/26/2007

**Sample No.:** 803381

**Date Received:** 1/27/2007

**Matrix:** SOLID

**METALS**

<u>Analytic Parameter</u>	<u>Preparation Date</u>	<u>Technician's Name</u>	<u>Analysis Date</u>	<u>Analyst's Name</u>	<u>QA Batch</u>
<u>ARSENIC</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>
<u>LEAD</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>

**INTERNAL CUSTODY RECORD  
AND  
LABORATORY CHRONICLE  
STL Edison**

777 New Durham Road, Edison, New Jersey  
08817

**Job No:** C378

**Site:** Li Tungsten

**Client:** ECC

**Date Sampled:** 1/26/2007

**Sample No.:** 803382

**Date Received:** 1/27/2007

**Matrix:** SOLID

**METALS**

<u>Analytic Parameter</u>	<u>Preparation Date</u>	<u>Technician's Name</u>	<u>Analysis Date</u>	<u>Analyst's Name</u>	<u>QA Batch</u>
<u>ARSENIC</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>
<u>LEAD</u>	<u>1/30/2007</u>	<u>Sanagavarapu, Suguna</u>	<u>1/30/2007</u>	<u>Polidori, Michael</u>	<u>22024</u>

**INTERNAL CUSTODY RECORD  
AND  
LABORATORY CHRONICLE  
STL Edison**

777 New Durham Road, Edison, New Jersey  
08817

<b>Job No:</b>	C378	<b>Site:</b>	Li Tungsten
<b>Client:</b>	ECC	<b>Date Sampled:</b>	1/26/2007
<b>Sample No.:</b>	803383	<b>Date Received:</b>	1/27/2007
		<b>Matrix:</b>	SOLID

**METALS**

Analytic Parameter	Preparation Date	Technician's Name	Analysis Date	Analyst's Name	QA Batch
ARSENIC	1/30/2007	Sanagavarapu, Suguna	1/30/2007	Polidori, Michael	22024
LEAD	1/30/2007	Sanagavarapu, Suguna	1/30/2007	Polidori, Michael	22024

## Methodology Review



## Analytical Methodology Summary

### Volatile Organics:

Unless otherwise specified, water samples are analyzed for volatile organics by purge and trap GC/MS as specified in EPA Method 624. Drinking water samples are analyzed by EPA Method 524.2 Rev 4.1. Solid samples are analyzed for volatile organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8260B.

### Acid and Base/Neutral Extractable Organics:

Unless otherwise specified, water samples are analyzed for acid and/or base/neutral extractable organics by GC/MS in accordance with EPA Method 625. Solids are analyzed for acid and/or base/neutral extractable organics as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8270C.

### GC/MS Nontarget Compound Analysis:

Analysis for nontarget compounds is conducted, upon request, in conjunction with GC/MS analyses by EPA Methods 624, 625, 8260B and 8270C. Nontarget compound analysis is conducted using a forward library search of the EPA/NIH/NBS mass spectral library of compounds at the greatest apparent concentration (10% or greater of the nearest internal standard) in each organic fraction (15 for volatile, 15 for base/neutrals and 10 for acid extractables).

### Organochlorine Pesticides and PCBs:

Unless otherwise specified, water samples are analyzed for organochlorine pesticides and PCBs by dual column gas chromatography with electron capture detectors as specified in EPA Method 608. Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition) Method 8081A for organochlorine pesticides and Method 8082 for PCBs.

### Total Petroleum Hydrocarbons:

Water samples are analyzed for petroleum hydrocarbons by I.R. using EPA Method 418.1. Solid samples are prepared for analysis by soxhlet extraction consistent with the March 1990 N.J. DEP "Remedial Investigation Guide" Appendix A, page 52, and analyzed by U.S. EPA Method 418.1

#### Metals Analysis:

Metals analyses are performed by any of four techniques specified by a Method Code provided on each data report page, as follows:

P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP)

A - Flame Atomic Absorption

F - Furnace Atomic Absorption

CV - Manual Cold Vapor (Mercury)

Water samples are digested and analyzed using EPA methods provided in "Methods for Chemical Analysis of Water and Wastewater" (EPA 600/4-79-020). Solid samples are analyzed as specified in the EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition); samples are digested according to Method 3050B "Acid Digestion of Soil, Sediments and Sludges."

Specific method references for ICP analyses are water Method - 200.7/SW846 6010B and for solid matrix - 6010B. Mercury analyses are conducted by the manual cold vapor technique specified by water Method 245.1/7470A and solid Method 7471A. Other specific Atomic Absorption method references are as follows:

<u>Element</u>	<u>Water Test Method Furnace</u>	<u>Solid Test Method Furnace</u>
Antimony	200.9	7041
Arsenic	200.9	7060A
Cadmium	200.9	7131A
Lead	200.9	7421
Selenium	200.9	7740
Thallium	200.9	7841

#### Cyanide:

Water samples are analyzed for cyanide using EPA Method 335.3. Cyanide is determined in solid samples as specified in the EPA Contract Laboratory Program IFB dated July 1988, revised February 1989.

#### Phenols:

Water samples are analyzed for total phenols using EPA Method 420.2. Total phenols are determined in water and solid samples by preparing the sample as outlined in the EPA Contract Laboratory Program IFB for cyanide, followed by a phenols determination using EPA Method 420.1.

#### Hexavalent Chromium:

Water samples are analyzed using EPA Method 7196A, EPA Method 7199 or (upon request) USGS -1230-35. Soil samples are subjected to alkaline digestion via EPA Method 3060A prior to analysis by EPA Method 7196A or EPA Method 7199.

#### Cleanup of Semivolatile Extracts:

Upon request Method 3611B Alumina Column Cleanup and/or Method 3650B Acid-Base Partition Cleanup are performed to improve detection limits by the removal of saturated hydrocarbon interferences.

#### Hazardous Waste Characteristics:

Samples for hazardous waste characteristics are analyzed as specified in the U.S. EPA publication "Test Methods for Evaluating Solid Waste" (SW-846, 3rd Edition). Specific method references are as follows:

- Ignitability - Method 1020A
- Corrosivity - Water pH Method 9040B  
Soil pH Method 9045C
- Reactivity - Chapter 7, Section 7.3.3 and 7.3.4  
respectively for hydrogen cyanide and  
hydrogen sulfide release
- Toxicity - TCLP Method 1311

#### Miscellaneous Parameters:

Additional analyses performed on both aqueous and solid samples are in accordance with methods published in the following references:

- Test Methods for Evaluating Solid Wastes, SW-846 3rd Edition, November 1986.
- Standard Methods for the Examination of Water and Wastewater, 18th Edition.
- Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, 1979.

## Data Reporting Qualifiers

ORGANIC DATA REPORTING QUALIFIERS

- ND - The compound was not detected at the indicated concentration.
- J - Mass spectral data indicates the presence of a compound that meets the identification criteria. The result is less than the specified quantitation limit but greater than or equal to the method detection limit. The concentration given is an approximate value.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- \* - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

INORGANIC DATA REPORTING QUALIFIERS (SW-846 METHODS ONLY)

- ND/U - The compound was not detected at the indicated concentration.
- B - Reported value is less than the Practical Quantitation Limit but greater than or equal to the Instrument Detection Limit.
- E - The reported value is estimated because of the presence of interference. See explanatory note in the Nonconformance Summary if the problem applies to all of the samples or on the individual Inorganic Analysis Data Sheet if the problem is isolated.
- M - Duplicate injection precision not met on the Furnace Atomic Absorption analysis.
- N - The spiked sample recovery is not within control limits.
- S - The reported value was determined by the Method of Standard Additions (MSA).
- \* - Duplicate Analysis is not within control limits.
- W - Post digestion spike for Furnace Atomic Absorption analysis is out of control.
- + - Correlation coefficient for MSA is less than 0.995.

M Column - Method Qualifiers

- P - Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP).
- A - Flame Atomic Absorption Spectroscopy (FAA).
- F - Graphite Furnace Atomic Absorption Spectroscopy (GFAA).
- CV - Cold Vapor Atomic Absorption Spectroscopy.

## Non-Conformance Summary



## Nonconformance Summary

STL Edison Job Number: C378

**Client:** ECC

**Date:** 2/5/2007

### Sample Receipt:

Sample delivery conforms with requirements.

### Metals:

All data conforms with method requirements.

I certify that the test results contained in this data package meet all requirements of NELAC both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this package has been authorized by the Laboratory Director or their designee, as verified by the following signature.

A handwritten signature in black ink, appearing to read "ML Legg".

Michael Legg  
Project Manager

## **Metals Forms and Data**

Analytical Results Summary



Client ID: FSS-PB-1001-1  
Site: Li Tungsten

Lab Sample No: 803376  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 33.0

# METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	<u>Qual</u>	<u>M</u>
Arsenic	6.4	1.4		P
Lead	119	0.81	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-1008-1  
Site: Li Tungsten

Lab Sample No: 803377  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 17.1

**METALS ANALYSIS**

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection <u>Limit</u>	<u>Qual</u>	<u>M</u>
Arsenic	6.9	1.1		P
Lead	54.9	0.65	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-102B-1  
Site: Li Tungsten

Lab Sample No: 803378  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 26.1

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	<u>Qual</u>	<u>M</u>
Arsenic	15.3	1.3		P
Lead	23.8	0.73	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)

M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-103B-1  
Site: Li Tungsten

Lab Sample No: 803379  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 16.1

**METALS ANALYSIS**

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection <u>Limit</u>	<u>Qual</u>	<u>M</u>
Arsenic	12.8	1.1		P
Lead	8.2	0.64	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-1022-1  
Site: Li Tungsten

Lab Sample No: 803380  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 10.6

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection <u>Limit</u>	<u>Qual</u>	<u>M</u>
Arsenic	12.5	1.1		P
Lead	325	0.60	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-1023  
Site: Li Tungsten

Lab Sample No: 803381  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 33.5

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	<u>Qual</u>	<u>M</u>
Arsenic	6.6	1.3		P
Lead	112	0.74	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-1024  
Site: Li Tungsten

Lab Sample No: 803382  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 25.0

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg <u>(Dry Weight)</u>	Instrument Detection <u>Limit</u>	<u>Qual</u>	<u>M</u>
Arsenic	10.8	1.3		P
Lead	25.5	0.72	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)

Client ID: FSS-PB-1025  
Site: Li Tungsten

Lab Sample No: 803383  
Lab Job No: C378

Date Sampled: 01/26/07  
Date Received: 01/27/07

Matrix: SOLID  
Level: LOW  
% Moisture: 12.1

#### METALS ANALYSIS

<u>Analyte</u>	Analytical Result Units: mg/kg (Dry Weight)	Instrument Detection Limit	<u>Qual</u>	<u>M</u>
Arsenic	40.6	1.1		P
Lead	9.9	0.61	*	P

Qual Column - Data Reporting Qualifiers (See Sec 2 of Report)  
M Column - Method Code (See Section 2 of Report)



## Blank Results Summary

## BLANKS

Lab Name: STL\_EDISON\_\_\_\_\_

Lab Code: 12028\_ Lab Job No.: \_C378

Batch No.: 22024\_

Preparation Blank Matrix (soil/water): SOIL\_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum											NR
Antimony											NR
Arsenic	4.7	U	4.7	U	4.7	U	4.7	U	0.470	U	P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	2.7	U	2.7	U	2.7	U	2.7	U	0.270	U	P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel	2.4	U	2.4	U	2.4	U	2.4	U	0.240	U	P
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Molybdenum											NR

# BLANKS

Lab Name: STL\_EDISON\_\_\_\_\_

Lab Code: 12028\_ Lab Job No.: \_C378 Batch No.: 22024\_

Preparation Blank Matrix (soil/water): \_\_\_\_\_

Preparation Blank Concentration Units (ug/L or mg/kg): \_\_\_\_\_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum											NR
Antimony											NR
Arsenic			4.7	U							P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead			2.7	U							P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel			2.4	U							P
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Molybdenum											NR

## Calibration Summary

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL\_EDISON\_\_\_\_\_

Lab Code: 12028\_ Lab Job No.: C378

Batch No.: 22024\_

Initial Calibration Source: INORG VENT\_\_

Continuing Calibration Source: INORG VENT\_\_

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum									NR
Antimony									NR
Arsenic	5000.0	4914.39	98.3	5000.0	4877.41	97.5	4944.41	98.9	P
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead	10000.0	9865.15	98.7	10000.0	9852.70	98.5	9989.86	99.9	P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel	2500.0	2481.80	99.3	2500.0	2470.63	98.8	2504.91	100.2	P
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Molybdenum									NR

(1) Control Limits: Mercury 80-120; ICP Metals 90-110; Furnace AA Metals 80-120

# INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: STL\_EDISON\_\_\_\_\_

Lab Code: 12028\_ Lab Job No.: C378 \_\_\_\_\_ Batch No.: 22024\_

Initial Calibration Source: INORG VENT\_\_

Continuing Calibration Source: INORG VENT\_\_

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum									NR
Antimony									NR
Arsenic				5000.0	4992.88	99.9	4937.38	98.7	P
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead				10000.0	10055.25	100.6	9961.62	99.6	P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel				2500.0	2513.41	100.5	2503.27	100.1	P
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Molybdenum									NR

(1) Control Limits: Mercury 80-120; ICP Metals 90-110; Furnace AA Metals 80-120

## ICP Interference Check Results Summary

## ICP INTERFERENCE CHECK SAMPLE

Lab Name: STL\_EDISON\_\_\_\_\_

Lab Code: 12028\_ Lab Job No.: C378 Batch No.: 22024\_

ICP ID Number: TRACE1 TJA61 ICS Source: INORG VENT\_\_

Concentration Units: ug/L

Analyte	True		Initial Found			Final Found		
	Sol. A	Sol. AB	Sol. A	Sol. AB	%R	Sol. A	Sol. AB	%R
Aluminum	500000	500000	485130	487160.6	97.4	491856	489972.2	98.0
Antimony		100		112.5	112.5		115.2	115.2
Arsenic		100		98.3	98.3		97.6	97.6
Barium		100		107.5	107.5		109.4	109.4
Beryllium		100		101.2	101.2		102.3	102.3
Cadmium		100		97.5	97.5		99.6	99.6
Calcium	500000	500000	498616	497180.3	99.4	502234	504378.6	100.9
Chromium		100		97.5	97.5		99.5	99.5
Cobalt		100		98.0	98.0		99.4	99.4
Copper		100		104.3	104.3		103.7	103.7
Iron	200000	200000	208179	207711.2	103.9	208816	209570.0	104.8
Lead		100		96.5	96.5		100.8	100.8
Magnesium	500000	500000	535324	534088.2	106.8	538002	538253.8	107.7
Manganese		100		100.3	100.3		100.8	100.8
Mercury								
Nickel		100		102.1	102.1		102.4	102.4
Potassium								
Selenium		100		97.5	97.5		92.6	92.6
Silver		100		105.6	105.6		105.2	105.2
Sodium								
Thallium		100		100.4	100.4		95.3	95.3
Vanadium		100		99.2	99.2		101.8	101.8
Zinc		100		106.4	106.4		106.2	106.2



## Spike Sample Recovery Summary

LAB SAMPLE NO.

## SPIKE SAMPLE RECOVERY

BSS013007

Lab Name: STL\_EDISON

Lab Code: 12028 Lab Job No.: C378

Batch No.: 22024

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic	75-125	200.5132	0.4700 U	200.00	100.3		P
Barium							NR
Beryllium							NR
Cadmium							NR
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead	75-125	50.7050	0.2700 U	50.00	101.4		P
Magnesium							NR
Manganese							NR
Mercury							NR
Nickel	75-125	51.0080	0.2400 U	50.00	102.0		P
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Molybdenu							NR

Comments:

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LAB SAMPLE NO.

## SPIKE SAMPLE RECOVERY

803377MS

Lab Name: STL\_EDISON

Lab Code: 12028 Lab Job No.: C378

Batch No.: 22024

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 82.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony							NR
Arsenic	75-125	220.6244	6.8979	241.25	88.6		P
Barium							NR
Beryllium							NR
Cadmium							NR
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead	75-125	110.4343	54.9300	60.31	92.0		P
Magnesium							NR
Manganese							NR
Mercury							NR
Nickel	75-125	87.2396	32.6591	60.31	90.5		P
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Molybdenum							NR

Comments:

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## Sample and MS Duplicate Results Summary

DUPLICATES

LAB SAMPLE NO.

LCSSD051-D

Lab Name: STL\_EDISON

Lab Code: 12028 Lab Job No.: C378

Batch No.: 22024

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 100.0

% Solids for Duplicate: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic		249.5056		253.9480		1.8		P
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead		138.3744		142.2036		2.7		P
Magnesium								NR
Manganese								NR
Mercury								NR
Nickel		104.5090		107.9010		3.2		P
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Molybdenum								NR

LAB SAMPLE NO.

## DUPLICATES

803377D

Lab Name: STL\_EDISON

Lab Code: 12028 Lab Job No.: C378

Batch No.: 22024

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 82.9

% Solids for Duplicate: 82.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Aluminum						NR
Antimony						NR
Arsenic		6.8979	7.3590	6.5		P
Barium						NR
Beryllium						NR
Cadmium						NR
Calcium						NR
Chromium						NR
Cobalt						NR
Copper						NR
Iron						NR
Lead		54.9300	75.5484	31.6	*	P
Magnesium						NR
Manganese						NR
Mercury						NR
Nickel		32.6591	34.3715	5.1		P
Potassium						NR
Selenium						NR
Silver						NR
Sodium						NR
Thallium						NR
Vanadium						NR
Zinc						NR
Molybdenum						NR

## Laboratory Control Samples Results Summary

LABORATORY CONTROL SAMPLE

Lab Name: STL\_EDISON\_\_\_\_\_

Lab Code: 12028\_      Lab Job No.: \_\_C378      \_\_\_\_\_ Batch No.: 22024\_\_

Solid LCS Source: ERA\_\_\_\_\_

Aqueous LCS Source: \_\_\_\_\_

Analyte	Aqueous (ug/L)			Solid (mg/kg)					%R
	True	Found	%R	True	Found	C	Limits		
Aluminum									
Antimony									
Arsenic				289.0	249.5		234.0	344.0	86.3
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				158.0	138.4		129.0	187.0	87.6
Magnesium									
Manganese									
Mercury									
Nickel				120.0	104.5		99.1	141.0	87.1
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Molybdenu									



## Serial Dilution Summary

LAB SAMPLE NO.

## ICP SERIAL DILUTION

803377L

Lab Name: STL\_EDISON

Lab Code: 12028 Lab Job No.: C378

Batch No.: 22024

Matrix (soil/water): SOIL

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ- ence	Q	M
Aluminum		-		-		-	NR
Antimony		-		-		-	NR
Arsenic	28.59	-	23.50	U	100.0	-	P
Barium		-		-		-	NR
Beryllium		-		-		-	NR
Cadmium		-		-		-	NR
Calcium		-		-		-	NR
Chromium		-		-		-	NR
Cobalt		-		-		-	NR
Copper		-		-		-	NR
Iron		-		-		-	NR
Lead	227.68	-	222.98	-	2.1	-	P
Magnesium		-		-		-	NR
Manganese		-		-		-	NR
Mercury		-		-		-	NR
Nickel	135.37	-	136.14	B	0.6	-	P
Potassium		-		-		-	NR
Selenium		-		-		-	NR
Silver		-		-		-	NR
Sodium		-		-		-	NR
Thallium		-		-		-	NR
Vanadium		-		-		-	NR
Zinc		-		-		-	NR

## Analysis Run Log

## ANALYSIS RUN LOG

Lab Name: STL\_EDISON\_\_\_\_\_

Contract: \_\_\_\_\_

Lab Code: 12028\_ Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_ SDG No.: 22024\_

Instrument ID Number: TRACE1 TJA61\_

Method: P\_

Start Date: 01/30/07

End Date: 01/30/07

Lab Sample No.	D/F	Time	% R	Analytes																							
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	M O
1CAL-BLK	1.00	1647		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T1CAL1	1.00	1652		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T1CAL2	1.00	1657		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T1CAL3	1.00	1702		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ	1.00	1711																									
ICV/CCV	1.00	1716				X									X				X								
ICB/CCB	1.00	1721				X									X				X								
ICSA	1.00	1726				X									X				X								
ICSAB	1.00	1732				X									X				X								
ZZZZZZ	1.00	1738																									
ZZZZZZ	1.00	1744																									
ZZZZZZ	1.00	1749																									
SS013007	1.00	1754				X									X				X								
BS013007	1.00	1759				X									X				X								
LCSSD051	2.00	1804				X									X				X								
SSD051-D	2.00	1810				X									X				X								
798581	2.00	1815				X																					
CCV	1.00	1820				X									X				X								
CCB	1.00	1825				X									X				X								
803377D	2.00	1831				X									X				X								
803377	2.00	1836				X									X				X								
803377L	2.00	1841				X									X				X								
803377MS	2.00	1846				X									X				X								
ZZZZZZ	2.00	1852																									
791140	2.00	1857																	X								
791141	2.00	1902																	X								
800083	2.00	1907				X																					
802790	2.00	1913				X									X												
802791	2.00	1918				X									X												
CCV	1.00	1923				X									X				X								
CCB	1.00	1928				X									X				X								
802792	2.00	1934				X									X												

## ANALYSIS RUN LOG

Lab Name: STL\_EDISON\_\_\_\_\_

Contract: \_\_\_\_\_

Lab Code: 12028\_ Case No.: \_\_\_\_\_

SAS No. : \_\_\_\_\_ SDG No. : 22024\_

Instrument ID Number: TRACE1 TJA61\_

Method: P\_

Start Date: 01/30/07

End Date: 01/30/07

Lab Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	A L	T	V	Z N	M O		
802793	2.00	1939				X								X															
803376	2.00	1944				X								X															
803378	2.00	1949				X								X															
803379	2.00	1955				X								X															
803380	2.00	2000				X								X															
803381	2.00	2005				X								X															
803382	2.00	2010				X								X															
803383	2.00	2016				X								X															
803392	2.00	2021				X								X															
CCV	1.00	2026				X								X				X											
CCB	1.00	2031				X								X				X											
803393	2.00	2037				X								X															
803394	2.00	2042				X								X															
803395	2.00	2047				X								X															
ICSA	1.00	2052				X								X				X											
ICSAB	1.00	2058				X								X				X											
CCV	1.00	2103				X								X				X											
CCB	1.00	2108				X								X				X											

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